JC03 Rec'd PCT/PTO 12-2004)

> Approved for use through 3/31/2007. OMB 0651-0021 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A SUBMISSION UNDER 35 U.S.C. 371

ATTORNEY'S DOCKET NUMBER

DESIGNATED/ELECTED OFFICE (DO/EO/US)			NKEL U3-11			
CONCERNING A SUBMISSION UNDER 35 U.S.C. 371		U.S. APPLICATION NO. (513 US) 37 FR'1.5)				
INTERNATIONAL APPLICATION NO. PCT/US04/11830		INTERNATIONAL FILING DATE 16 April 2004	PRIORITY DATE CLAIMED 18 April 2003			
TITLE OF INVENTION OXYGEN-RESISTANT HYDROGENASES AND METHODS FOR DESIGNING AND MAKING SAME						
	(S) FOR DO/EO/US	ANDER ME ME ME ME DE	STOTAL COLUMN			
	NG, MARIA L. GHIRARDI					
Applicant h	erewith submits to the United St	tates Designated/Elected Office (DO/E	O/US) the following items and other information:			
1. 🔀 Th	This is a FIRST submission of items concerning a submission under 35 U.S.C. 371.					
2. ∐ Th	is is a SECOND or SUBSEQUENT so	ubmission of items concerning a submission	n under 35 U.S.C. 371.			
	This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.					
4. 🔲 Th	e US has been elected (Article 31).					
5. 🛭 🗸	A copy of the International Application	n as filed (35 U.S.C. 371(c)(2))				
	is attached hereto (required	only if not communicated by the Internation	nal Bureau).			
ı	b. has been communicated by the International Bureau.					
	c. is not required, as the applic	cation was filed in the United States Receiv	ing Office (RO/US).			
6	An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).					
	a. is attached hereto.					
	b. has been previously submitted under 35 U.S.C. 154(d)(4).					
7. 🖾 ,	Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))					
	a. are attached hereto (required only if not communicated by the International Bureau).					
	b. have been communicated by the International Bureau.					
	c. have not been made; however, the time limit for making such amendments has NOT expired.					
	d. Aave not been made and will not be made.					
8.	An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).					
9. 🛛 .	An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).					
	An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).					
Items I I to 20 below concern document(s) or information included:						
11. 🛛	An Information Disclosure Statement	under 37 CFR 1.97 and 1.98.				
12. 🔀	An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.					
13.	A preliminary amendment.					
14.	An Application Data Sheet under 37 CFR 1.76.					
15.	A substitute specification.					
16.	A power of attorney and/or change of address letter.					
17.	A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825.					
18	A second copy of the published International Application under 35 U.S.C. 154(d)(4).					

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).

19. 20. L

Other items or information:

Page 1 of 2

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. APPLICATION NO. (if known, see 37 CFR 1.5) INTERNATIONAL APPLICATION NO.				TION NO.	ATTORNEY'S DOCKET NUMBER		
	10/553	<b>U9</b>	PCT/US04/11830			NREL 03-11	
	g fees are submitted:		<del></del>			Applicant use	Office use only
a) Basic na	tional fee				\$300.00	\$ 300.00	
b) Examination fee\$200.00			\$200.00	\$ 200.00			
C) Search f	ee				\$500.00	\$ 500.00	
	TOTAL OF ABOVE CAL				\$`1000.00	\$ 1000.00	
Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.				ng sequence or each	:		
Total Sheets	Extra sheets		r of each additional 50 or fraction of (round up to a whole number		RATE		
- 100 =	/50 =				x \$250.00	\$ 0	
	30.00 for furnishing the or date (37 CFR 1.492(e)).	ath or dec	laration later than 30 months fro	om the	earliest	\$	
CLAIMS	NUMBER FIL	.ED	NUMBER EXTRA		RATE	\$	
Total claims	18	- 20 =	0	×	\$50.00	\$	
Independent cla	ims 5 .	-3=	2	×	\$200.00	\$ 400.00	
MULTIPLE DEP	ENDENT CLAIM(S) (if ap	plicable)		+	\$360.00	\$	
			TOTAL OF ABOVE			\$ 1400.00	
Applicant of by 1/2.	claims small entity status.	See 37 C	FR 1.27. The fees indicated ab	ove ar	e reduced	<b>\$</b> 700.00	,
				;	SUBTOTAL=	\$ 700.00	·
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(f)).							
TOTAL NATIONAL FEE = \$ 700.00							
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property \$40.00							
	TOTAL FEES ENCLOSED = \$ 740.00						
			Amo	unt to	be refunded:		\$
	Amount to be charged					s	
a. A che	ck in the amount of \$		to cover the abo	ve fee	s is enclosed.		
b. Please charge my Deposit Account No. 14-0460 in the amount of \$ 740.00 to cover the above fees.  A duplicate copy of this sheet is enclosed.							
c. The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 14-0460 A duplicate copy of this sheet is enclosed.							
d. Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.							
NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.1 37(a) or (b)) must be filed and granted to restore the International Application to pending status.							
(/) \(\sigma\)							
Paul J. White							
NDEI					-		
	ole Blvd.				PAUL J. WI	НГЕ	
	, CO 80401				NAME		
Coldon	,			_	30,436 REGISTRAT	ON NUMBER	-
ACOIOTIVITOR ROMEIN							

## JC09 Rec'd PCT/PTO 13 OCT 2005

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Paul King et al.	)
		) Art Unit: Not Yet Accorded
Serial No.:	Not Yet Accorded	)
		) Examiner: Not Yet Accorded
Filing Date:	Not Yet Accorded	)
		)
Title: Oxyge	en-Resistant Hydrogenases and	) Atty Dkt. No.: NREL 03-11
	ods for Designing and Making Same	)

## **CERTIFICATE OF MAILING UNDER 37 CFR § 1.10**

Express Mail Mailing Label No. EL 927021729 US

Date of Deposit October 13, 2005

I hereby certify that the following documents:

- (1) Transmittal Letter to the United States Designated/Elected Office Concerning a Filing Under 35 USC 371 [2 pages]
- (2) Information Disclosure Statement
- (3) Declaration of Inventorship [2 pages]
- (4) Recordation Form Cover Sheet + Assignment [3 pages]
- (5) Postcard Receipt

are being deposited in the U.S. Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated above and is addressed to the Commissioner for Patents, U.S. Patent & Trademark Office, P.O. Box 1450, Patent Application, Alexandria, VA 22313-1450.

Brenda E. Brantley

Senior Patent Administrator

National Renewable Energy Laboratory 1617 Cole Blvd. Golden, CO 80401 303/384-7576 Fax No. 303/384-7499